What is claimed is:

1. A torsional vibration damper comprising:

a plurality of components rotatable relative to each other about a common axis;

at least two deformable energy storing elements arranged to yieldably oppose rotation of said components relative to each other; and

means for coupling said energy storing elements to each other for controlled entrainment of one of said elements in response to deformation of the other of said elements.

2. The damper of claim 1, wherein said components form part of a split flywheel.

3. The damper of claim 1, wherein at least one of said energy storing elements is a coil spring.

4. The damper of claim 3, wherein said at least one energy storing element is an arcuate coil spring.

5. The damper of claim 1, wherein a first energy storing element is arranged to store and dissipate energy and said first energy storing element is arranged to be entrained in response to dissipation of energy by a second energy storing element.

6. The damper of claim 1, wherein said coupling means includes at least one first entraining member that is in motion-transmitting engagement with one of said energy

storing elements, and at least one second entraining member that is in engagement with another of said energy storing elements.

7. The damper of claim 6, including a substantially circular, disc-shaped carrier element for each of said at least one first and at least one second entraining members.

8. The damper of claim 7, including a support for said carrier elements, wherein each of said carrier elements is turnable relative to and in frictional contact with said support.

9. The damper of claim 8, wherein said support includes a flange coupled to at least one of said energy storing elements.

10. The damper of claim 8, wherein at least one of said carrier elements is centered relative to said support.

11. The damper of claim 10, wherein each of said carrier elements includes a radially inner and a radially outer portion, one of said radially inner and outer portions being centered relative to said support.

12. The damper of claim 6, wherein at least one of said energy storing elements includes a compression coil spring having a plurality of convolutions including two

neighboring convolutions, wherein at least one of said first and second entraining members is disposed between said neighboring convolutions of said coil spring.

13. The damper of claim 6, wherein at least one of said energy storing elements includes a compression coil spring having a plurality of convolutions including at least one larger-diameter convolution and at least two smaller-diameter convolutions flanking said at least one larger-diameter convolution, at least one of said first and second entraining members including first and second coupling elements each having two spaced-apart entraining portions for the at least one larger-diameter convolution of said compression coil spring, said at least one larger diameter convolution being disposed between and being engaged by said entraining portions of the respective coupling element.

14. The damper of claim 6, wherein at least one of said energy storing elements includes a compression coil spring having a plurality of convolutions including a first convolution having a first diameter and two additional convolutions having second diameters greater than said first diameter, said first convolution being disposed between said second convolutions, and one of said entraining members including a portion disposed radially inwardly at said first convolution and flanked by said additional convolutions.

15. The damper of claim 6, further including a substantially circular carrier element for each of said first and second entraining members, at least one of said

carrier elements formed at least in part of a metallic sheet material, and wherein at least one of said entraining members is formed of a metallic sheet material.

16. The damper of claim 15, wherein said at least one entraining member includes a substantially arcuate section affixed to said at least one carrier element and a projection extending substantially radially outwardly from said substantially arcuate section.

17. The damper of claim 1, wherein the number of said energy storing elements exceeds two.

18. The damper of claim 1, wherein each of said energy storing elements extends along an arc of approximately *a* times 90°, *a* being a whole number including one.

19. The damper of claim 1, wherein each of said energy storing elements extends along an arc of about 180° and said energy storing elements are disposed at least substantially diametrically opposite each other.

20. The damper of claim 1, wherein each of said components is a ring-shaped mass.